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## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

## **LISTING OF CLAIMS:**

1. A method for treating neuropathic pain [is] in a patient comprising administering an effective neuropathic pain-treating dose of a pharmaceutical composition comprising a compound of formula I:

$$R^{10}$$
 $R^{2}$ 
 $R^{10}$ 
 $R^{2}$ 
 $R^{3}$ 
 $R^{4}$ 

wherein

R<sup>1</sup> is selected from the group consisting of hydrogen, alkyl

$$R^{5}$$
— $C$ —,  $R^{6}$ — $N$ — $C$ — and  $R^{8}$ — $X$ — $CH$ —;  $R^{7}$ 

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each R<sup>2</sup> is independently selected from a group of the formula:

R<sup>3</sup> is selected from the group consisting of hydrogen, alkyl, cycloalkyl and aryl;
R<sup>4</sup> is selected from the group consisting of alkyl, substituted alkyl, alkenyl,
substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl,
cycloalkenyl and substituted cycloalkenyl;

R<sup>5</sup> is selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl and substituted cycloalkenyl;

R<sup>6</sup> and R<sup>7</sup> are independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl and substituted cycloalkenyl; or R<sup>6</sup> and R<sup>7</sup> can be joined to form an alkylene or substituted alkylene group having from 2 to 10 carbon atoms;

R<sup>8</sup> is selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl and substituted cycloalkenyl;

R<sup>9</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, substituted cycloalkyl,

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cycloalkenyl and substituted cycloalkenyl; or R<sup>8</sup> and R<sup>9</sup> can be joined to form an alkylene or substituted alkylene group having from 2 to 10 carbon atoms;

 $R^{10}$  is selected from the group consisting of hydrogen, lower alkyl and lower cycloalkyl; or  $R^1$  and  $R^{10}$  can be joined to form an alkylene, substituted alkylene, -C(O)- -S(O)- or -S(O)<sub>2</sub>- group;

 $R^{11}$  and  $R^{12}$  are independently selected from the group consisting of lower alkyl and lower cycloalkyl; or  $R^{11}$  and  $R^{12}$  can be joined to form an alkylene group having from 2 to 10 carbon atoms;

X is oxygen, sulfur, -S(O)- or  $-S(O)_2$ -; and

W is oxygen or sulfur; and pharmaceutically-acceptable salts thereof.

- 2. The method of Claim 1 wherein W is oxygen.
- 3. The method of Claim 2 wherein R<sup>3</sup> is hydrogen or lower alkyl.
- 4. The method of Claim 3 wherein R<sup>3</sup> is hydrogen.
- 5. The method of Claim 4 wherein R<sup>4</sup> is selected from the group consisting of alkyl, substituted alkyl and cycloalkyl.
- 6. The method of Claim 5 wherein R<sup>4</sup> is selected from the group consisting of methyl, *n*-propyl, isopropyl, 1-hydroxy-2-methylprop-2-yl, *n*-butyl, *tert*-butyl, 3-thiomethylpropyl, 3-(thiomethoxy)but-1-yl, cyclohexyl, 4-trifluoromethybenzyl and 3,4,5-trimethoxybenzyl.
  - 7. The method of Claim 4 wherein R<sup>5</sup> is selected from the group consisting of

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alkyl and cycloalkyl.

- 8. The method of Claim 7 wherein  $R^5$  is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl and n-butyl.
- 9. The method of Claim 4 wherein R<sup>7</sup> is hydrogen and R<sup>6</sup> is selected from the group consisting of alkyl and alkoxycarbonylalkyl.
- 10. The method of Claim 9 wherein R<sup>6</sup> groups is selected from the group consisting of ethyl, *n*-propyl, isopropyl, *n*-butyl, ethoxycarbonylmethyl and 2-(ethoxycarbonyl)ethyl.
- 11. The method of Claim 4 wherein X is oxygen; R<sup>9</sup> is hydrogen; and R<sup>8</sup> is alkyl or alkoxyalkyl.
- 12. The method of Claim 11 wherein R<sup>8</sup> is selected from the group consisting of methyl and methoxyethyl.
- 13. The method of Claim 4 wherein  $R^{10}$ ,  $R^{11}$  and  $R^{12}$  are independently lower alkyl.
  - 14. The method of Claim 13 wherein  $R^{10}$ ,  $R^{11}$  and  $R^{12}$  are methyl.
  - 15. The method of Claim 1 wherein the compound is of formula IA:

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$$CH_3$$
 $CH_3$ 
 $CH_3$ 

wherein

R<sup>14</sup> is selected from the group consisting of alkyl, substituted alkyl, cycloalkyl and substituted cycloalkyl.

- The method of Claim 15 wherein R<sup>14</sup> is an alkyl of from 3 to 8 carbon 16. atoms.
  - The method of Claim 16 wherein R<sup>14</sup> is *tert*-butyl. 17.
  - The method of Claim 16 wherein R<sup>14</sup> is tert-octyl. 18.
  - The method of Claim 1 wherein the compound is of formula II: 19.

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wherein

R<sup>13</sup> is selected from the group consisting of alkyl, substituted alkyl, cycloalkyl and substituted cycloalkyl;

R<sup>14</sup> is selected from the group consisting of alkyl, substituted alkyl, cycloalkyl and substituted cycloalkyl; and pharmaceutically-acceptable salts thereof.

- $\cdot$  20. The method of Claim 15 wherein  $R^{13}$  is lower alkyl and  $R^{14}$  is selected from the group consisting of alkyl, substituted alkyl and cycloalkyl.
  - 21. The method of Claim 1 wherein the compound is of formula III:

wherein

R<sup>15</sup> and R<sup>16</sup> are independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, cycloalkyl, substituted cycloalkyl; or R<sup>15</sup> and R<sup>16</sup> can be joined to form an alkylene or substituted alkylene group having from 2 to 10 carbon atoms;

 $R^{17}\ \text{is selected from the group consisting of alkyl, substituted alkyl, cycloalkyl and}$ 

substituted cycloalkyl; and pharmaceutically-acceptable salts thereof.

- 22. The method of Claim 21 wherein R<sup>16</sup> is hydrogen and R<sup>15</sup> is selected from the group consisting of alkyl and alkoxycarbonylalkyl.
  - 23. The method of Claim 1 wherein the compound is of formula IV:

wherein

R<sup>18</sup> is selected from the group consisting of alkyl, substituted alkyl, cycloalkyl and substituted cycloalkyl;

R<sup>19</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, cycloalkyl and substituted cycloalkyl; or R<sup>18</sup> and R<sup>19</sup> can be joined to form an alkylene or substituted alkylene group having from 2 to 10 carbon atoms;

R<sup>20</sup> is selected from the group consisting of alkyl, substituted alkyl, cycloalkyl and substituted cycloalkyl; and pharmaceutically-acceptable salts thereof.

- 24. The method of Claim 23 wherein R<sup>19</sup> is hydrogen and R<sup>18</sup> is alkyl or alkoxyalkyl.
  - 25. The method of Claim 24 wherein R<sup>18</sup> is methyl or methoxyethyl.

- 26. The method of Claim 23 wherein  $R^{20}$  is selected from the group consisting of alkyl, substituted alkyl and cycloalkyl.
- 27. The method of Claim 26 wherein R<sup>20</sup> is selected from the group consisting of methyl, *n*-propyl, isopropyl, 1-hydroxy-2-methylprop-2-yl, *n*-butyl, *tert*-butyl, 3-thiomethylpropyl, 3-(thiomethoxy)but-1-yl, cyclohexyl, 4-trifluoromethybenzyl and 3,4,5-trimethoxybenzyl.
- 28. The method of Claim 1 wherein the compound is selected from the group consisting of:

α-(4-acetoxy-3,5-di-*tert*-butylphenyl)-*N-tert*-butylnitrone

 $\alpha$ -(4-isobutanoyloxy-3,5-di-*tert*-butylphenyl)-*N*-*tert*-butylnitrone

α-(4-*n*-butanoyloxy-3,5-di-*tert*-butylphenyl)-*N*-*tert*-butylnitrone

 $\alpha$ -(4-acetoxy-3,5-di-*tert*-butylphenyl)-N-isopropylnitrone

 $\alpha\text{-}(4\text{-}acetoxy\text{-}3,5\text{-}di\text{-}\textit{tert}\text{-}butylphenyl)\text{-}\textit{N}\text{-}1\text{-}hydroxy\text{-}2\text{-}methylprop\text{-}2\text{-}ylnitrone}$ 

 $\alpha$ -(4-*n*-pentanoyloxy-3,5-di-*tert*-butylphenyl)-*N*-*tert*-butylnitrone

 $\alpha$ -(4-acetoxy-3,5-di-*tert*-butylphenyl)-N-4-trifluoromethylbenzylnitrone

α-(4-propionyloxy-3,5-di-*tert*-butylphenyl)-*N-tert*-butylnitrone

 $\alpha$ -(4-acetoxy-3,5-di-*tert*-butylphenyl)-*N*-methylnitrone

 $\alpha$ -(4-acetoxy-3,5-di-*tert*-butylphenyl)-N-3,4,5-trimethoxybenzylnitrone

 $\alpha\hbox{-}[4\hbox{-}(2\hbox{-}ethoxycarbonyl)\hbox{ethylaminocarbonyloxy})\hbox{-}3,5\hbox{-}di\hbox{-}\textit{tert}\hbox{-}butylphenyl]\hbox{-}\textit{N-tert-}butylnitrone$ 

 $\alpha$ -[4-(2-ethoxycarbonyl)methylaminocarbonyloxy)-3,5-di-*tert*-butylphenyl]-*N-tert*-butylnitrone

 $\alpha$ -(4-methoxymethoxy-3,5-di-tert-butylphenyl)-N-tert-butylnitrone  $\alpha$ -[4-(2-methoxy)ethoxymethoxy-3,5-di-tert-butylphenyl]-N-tert-butylphenyl]-N-3-(thiomethoxy)but-1-ylnitrone  $\alpha$ -(4-methoxymethoxy-3,5-di-tert-butylphenyl)-N-3-thiomethoxypropylnitrone  $\alpha$ -(4-methoxymethoxy-3,5-di-tert-butylphenyl)-N-tert-butylphenyl)-N-tert-butylphenyl)-N-tert-butylphenyl)-N-tert-butylphenyl)-N-tert-butylphenyl)-N-tert-butylphenyl)-N-tert-butylphenyl)-N-tert-octylnitrone

 $\alpha$ -(4-hydroxy-3,5-dimethoxyphenyl)-N-tert-butylnitrone

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 $\alpha$ -(4-hydroxy-3,5-dimethylphenyl)-N-hexylnitrone

 $\alpha$ -(4-hydroxy-3,5-dimethylphenyl)-N-tert-butylnitrone

 $\alpha\text{-}(4\text{-hydroxy-3,5-di-tert-butylphenyl})\text{-}N\text{-}(1,1\text{-dimethyl-2-hydroxyethyl})n itrone$ 

 $\alpha$ -(4-hydroxy-3,5-di-tert-butylphenyl)-N-(1,1-dimethylpropyl)lnitrone

 $\alpha\hbox{-}(4\hbox{-hydroxy-3,5-di-tert-butylphenyl})\hbox{-}N\hbox{-}(1\hbox{-methylethyl})lnitrone$ 

 $\alpha\hbox{-(4-hydroxy-3,5-di-tert-butylphenyl)-N-benzylnitrone}$ 

α-(4-methoxy-3,5-di-*tert*-butylphenyl)-*N-tert*-butylnitrone

and pharmaceutically acceptable salts thereof.

- 29. The method of Claim 1 wherein the compound is  $\alpha$ -(4-hydroxy-3,5-di-*tert*-butylphenyl)-*N-tert*-butylnitrone
- 30. The method of Claim 1 wherein the compound is  $\alpha$ -(4-hydroxy-3,5-di-*tert*-butylphenyl)-*N-tert*-octylnitrone
- 31. The method of Claim 1 wherein the compound is  $\alpha$ -(4-acetoxy-3,5-di-*tert*-butylphenyl)-*N*-*tert*-octylnitrone
  - 32. The method of Claim 1 wherein the compound is  $\alpha$ -(4-n-butanoyloxy-3,5-di-

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*tert*-butylphenyl)-*N-tert*-butylnitrone

33. A pharmaceutical composition for the treatment of neuropathic pain comprising a pharmaceutically acceptable carrier and a pharmaceutically effective neuropathic pain-treating amount of a compound of formula I:

$$R^{10}$$
 $R^{2}$ 
 $R^{2}$ 
 $R^{3}$ 
 $R^{4}$ 

wherein

R<sup>1</sup> is selected from the group consisting of hydrogen:

each R<sup>2</sup> is independently selected from a group of the formula:

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R<sup>3</sup> is selected from the group consisting of hydrogen, alkyl, cycloalkyl and aryl;

R<sup>4</sup> is selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl and substituted cycloalkenyl;

R<sup>5</sup> is selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl and substituted cycloalkenyl;

R<sup>6</sup> and R<sup>7</sup> are independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl and substituted cycloalkenyl; or R<sup>6</sup> and R<sup>7</sup> can be joined to form an alkylene or substituted alkylene group having from 2 to 10 carbon atoms;

R<sup>8</sup> is selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl and substituted cycloalkenyl;

R<sup>9</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl and substituted cycloalkenyl; or R<sup>8</sup> and R<sup>9</sup> can be joined to form an alkylene or substituted alkylene group having from 2 to 10 carbon atoms;

 $R^{10}$  is selected from the group consisting of hydrogen, lower alkyl and lower cycloalkyl; or  $R^{1}$  and  $R^{10}$  can be joined to form an alkylene, substituted alkylene, -C(O)-

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S(O)- or  $-S(O)_2$ - group;

 $R^{11}$  and  $R^{12}$  are independently selected from the group consisting of lower alkyl and lower cycloalkyl; or  $R^{11}$  and  $R^{12}$  can be joined to form an alkylene group having from 2 to 10 carbon atoms;

X is oxygen, sulfur, -S(O)- or  $-S(O)_2$ -; and

W is oxygen or sulfur; and pharmaceutically-acceptable salts thereof.

- 34. The pharmaceutical composition of Claim 33 wherein the compound is  $\alpha$ -(4-hydroxy-3,5-di-*tert*-butylphenyl)-*N-tert*-butylnitrone.
- 35. The pharmaceutical composition of Claim 33 wherein the compound is  $\alpha$ -(4-hydroxy-3,5-di-*tert*-butylphenyl)-*N-tert*-octylnitrone.